Seeing: Count the Bounces Formative Evaluation Study

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THIS IS **NOT** A DEFINITIVE FINAL REPORT

FORMATIVE evaluation studies like this one often:

- **are conducted quickly**, which may mean
  - small sample sizes
  - expedited analyses
  - brief reports

- **look at an earlier version** of the exhibit/program, which may mean
  - a focus on problems and solutions, rather than successes
  - a change in form or title of the final exhibit/program

Seeing: Count the Bounces Formative Evaluation Report

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Purpose:
• To find out if the interface of the multimedia interactive exhibit worked well with visitors.
• To find out how many visitors noticed the gorilla and why
• To find out about the pacing of information and display worked well with visitors.

Methods: Brief, non-cued interviews conducted on Tues 2/5 (Prototype Area, near main office) and Sat 2/9 (Seeing Area, near Bright Black).
N: 39   **Gender:** F (49%) M (38%) No t recorded (13%)
Age: 8-12 (5%) 13-17 (13%) 18-20s (31%) 30s (21%) 40s+ (15%) Not recorded (15%)

Findings

How did visitors use the exhibit?
Although this was not observed in a particularly systematic manner, certain things are clear.

• Visitors generally use the exhibit in groups of one or two[°]. When using the exhibit as a couple, it was not uncommon for only one visitor to see the gorilla on the first viewing. In these cases, the visitor who saw it did not reveal its presence to the other visitor.

• Some visitors called over friends and family members to use the exhibit. Their behavior in doing so was very similar to what you might see with "Touch the Spring," where the visitor who first used the exhibit becomes an accomplice in the "trick," instructing new users on what to do and how to do it, then laughing when the surprise is revealed.

• Visitors were occasionally interrupted during their use of the exhibit – typically by group members calling out to them from nearby exhibits. These interruptions did not have any obvious effect on their experience of the exhibit.

• During observation, no visitors were seen to start the video and then walk away.

How many times did visitors watch the basketball clip?
• 7 visitors (18%) watched the clip only once.

• 22 visitors (56%) watched the clip twice.

• 10 visitors (26%) watched the clip three times.

Did visitors notice the gorilla at any point while they were using the exhibit?
• 30 visitors (77%) did notice the gorilla.

• 9 visitors (23%) did not. Of these, 4 watched the clip once, 4 watched it twice, and 1 watched it three times.

[°] At two times during observation, a large number of teens all crowded around and used the exhibit as a group. Both groups apparently had a very successful experience with it.

When did visitors notice the gorilla?
- Of the 30 visitors who noticed the gorilla, half noticed it during the first viewing, and almost half (14 visitors) noticed it during the second viewing. One visitor didn't notice until the third viewing.
- Only 3 of the visitors who noticed the gorilla during their first viewing left without watching the clip a second or even a third time.

Why did visitors think they didn't notice the gorilla before?
Among visitors who noticed the gorilla, but not during the first clip (15 visitors total):
- 10 visitors noted that they were concentrating on the ball or too busy counting the bounces to notice the gorilla.
- 4 said they were concentrating on the white shirts.
- 3 thought they weren't paying close enough attention.
- 2 noticed that the gorilla was black and perhaps blended with the black "team."
Some visitors gave more than one reason.

Did visitors read the instructions?
- Most visitors (85%) said they read the instructions. At least some of the 6 visitors who did not read the instructions still counted bounces, though – these folks probably figured it out from the title.

What did visitors think of the pacing of the post-video statements?
- 28 visitors (72%) thought the pacing was fine.
- 5 thought the pacing was too fast, 3 thought it was too slow, and 2 left during the statements and felt like they couldn't comment on the pacing.

Did visitors find anything confusing or frustrating?
- Of the 29 visitors[*] who were asked, 23 visitors (80%) found nothing confusing or frustrating about using the exhibit.
- 2 visitors had trouble seeing the white and black shirts because they sat to use the exhibit, and were apparently looking at the screen from an odd angle.
- 2 visitors tried to count ALL of the bounces the first time, instead of those done by the white "team."
- 2 visitors thought that trying to count the bounces, in general, was confusing.

Interpretation and Recommendations
The optimal experience of "Count the Bounces" seems to consist of watching the video at least two times, and noticing the gorilla during the second (or even the third) viewing. Visitors who don't have this experience fit into two categories: those who notice the gorilla during their first viewing, and those who never notice the gorilla. 15 visitors (38.5%) had the optimal experience, 15 (38.5%) noticed the gorilla on their first viewing, and 9 (23%) never noticed the gorilla. Given that the interface is clear and presents no obvious problems, revisions should focus on increasing the percentage of visitors who have an optimal or near-optimal experience.

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[*] The first ten visitors completed an abbreviated version of the interview which did not include this question.

Among the 15 visitors who noticed the gorilla on their first viewing, a large fraction were probably doing what they were instructed to do, and saw the gorilla anyhow (anecdotal evidence, as well as the high percentage of visitors who said they read the instructions, suggests this conclusion). This group is probably hard to affect in revision, short of trying to improve the reliability of the phenomenon by changing the video or the projection method. It might be possible to increase the number of visitors who read the instructions before playing the video by imbedding the "play" command in the text somehow. Alternately, the instructions could be "read aloud" by the computer when the play button was pressed. Since only a small number of visitors who did not read the instructions, the payoff for this would be small

Of the 9 visitors who never noticed the gorilla, 5 watched the video more than once. Given that it's pretty hard *not* to notice the gorilla if your attention is not otherwise engaged, these folks were probably continuing to count the bounces on their second (and third!) times through. The 4 visitors who didn't see the gorilla and left after one viewing may not have stayed through the post-video text. In order to increase the percentage of visitors who stay "hooked in" to the exhibit, and understand the next step, I would suggest changing the post-video text. Although we didn't gather data on this directly, I suspect that some visitors pay successively less attention to each bullet, so the first one has to grab them. Perhaps something like the following:

1) While you were counting bounces, did you notice something strange?

2) Many people completely miss it.

3) If you missed it, watch the video again *but don't count or watch the bounces*.

The bullet that tells visitors the number of bounces may lead some to conclude that they've had the full experience. If this bullet is included, perhaps it could be moved to the end ("by the way, there were twelve bounces"). It is important to emphasize the part about not counting the bounces on their second viewing (different color, perhaps?) because visitors get instructions to the contrary when the video resets itself. It would be nice to allow visitors to go directly from the post-video text to the video itself - one way to accomplish this would be to have an imbedded play button at the end of the post-video text – "press here to watch again" – that allowed visitors to skip the initial instructions.

Most visitors thought the pacing of the post-video text was fine, but some didn't stay through more than one viewing, and were either missing the last bits of text or ignoring them. Rather than change the pacing, it would be great to indicate (somehow) to the visitors that more text was coming. Perhaps a blinking cursor? Scrolling text?

Count the Bounces is in good shape overall. Many visitors, even those who saw the gorilla on their first viewing, were eager to share it with their friends and family.

Acknowledgements